ENSR

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May 30, 1991

Joseph Freudenberg, Case Manager
Bureau of Federal Case Management
Division of Hazardous Waste Management
New Jersey Department of Environmental Protection
CN 028
Trenton, NJ 08625-0028

Re: UOP Inc., East Rutherford Township
Groundwater Interim Remedial Measure (IRM)
Design Investigation Plan (DIP)

Dear Mr. Freudenberg:

We are writing on behalf of Allied-Signal Inc. in response to your letter of May 13, 1991 concerning the above-mentioned project. This letter provides a response to your comments on the DIP as we discussed in telephone calls on May 21, 24, and 28. In those discussions, we agreed to provide a response in a letter format, rather than revising and resubmitting the plan. The responses provided below follow the format and numbering system of your May 13 letter.

General Comments

1. Two types of treatability tests are planned: manganese green sand filtration and lime precipitation, both intended to remove iron and manganese. The organic contaminants in the groundwater are relatively common and their treatment characteristics known. Given that basis, the size and scope of the IRM, and the desire to expedite the schedule, tests of technologies used for removal of organic contaminants were not included in the DIP. Based on our conversation on May 28, we understand that the Department accepts this approach.

2. A discussion of the planned magnetometer survey was inadvertently omitted from the DIP. The objective of this survey, which is discussed in the IRM Work Plan for Areas 1A and 2 (ENSR, November 1990), is to locate buried metal objects along the location of the proposed groundwater collection trenches. As discussed with you on May 28, the magnetometer survey will be performed during the DIP field program.

3. The requirements for the Discharge to Groundwater permit and the Discharge to Surface Water permit were addressed briefly in Sections 4.2 and 4.3 (pages 4-2 through 4-6) of the IRM Work Plan for Areas 1A and 2.

Specific Comments

4. a. As requested, the Preliminary Design Report will include all pertinent information and interpretations related to the Seep/Sewer Network Investigation.

b. Future submissions for this project will reflect this comment.

5. One round of water-level measurements were collected in the preliminary field program in November, 1990. A second round of water-level measurements will be collected in the upcoming field program.

6. The five wells to be tested were selected based on their locations relative to the proposed collection trenches. We believe that these wells are most likely to yield data that would be relatively representative of the influent to a groundwater treatment system. The reference to six wells was an editorial error.

   The well locations and nomenclature will be clearly identified on the figures in future submissions.

7. The well locations were selected to characterize areas of the aquifer that were not represented by existing monitoring wells.

   Groundwater flow direction will be indicated in the Preliminary Design Report.

8. Morie sand (No. 00N or 0) will be used for the sand pack.

9. Soils will be classified using the Burmeister Classification System. Additional observations will include staining and odor.

10. The drill cuttings and development water will be taken from the shallow, contaminated aquifer. In the investigation area, material only a few feet below the surface is contaminated. In our conference call on May 21, we proposed that drill cuttings and well development water be disposed of by pouring or spreading on the ground surface next to the new well locations (within the area of contamination). Given the conditions at the site, this would not represent an endangerment to public health or the environment. Based on our discussion on May 28, we understand that the Department accepts this approach.

11. a. The wells to be sampled were selected based on their locations relative to the proposed collection trenches.

    b. Samples will not be collected until at least two weeks after development of the new wells.

12. The samples were roughly flow-weighted to represent the likely relative contribution to the groundwater collection system.

13. a. Approximate reagent dosages for the field test will be determined by field analyses of the groundwater sample(s) to be treated. A sample(s) will be tested for iron and manganese concentrations, and titrated with a standard permanganate solution to determine the

reaction endpoint in solution. Samples of the influent and effluent to the treatment column will also be sent to a laboratory for confirmatory tests for iron and manganese, as indicated in the DIP.

b. The 2 ppm target level is based on discussions with vendors of carbon adsorption and air stripping units. That level is a rough rule of thumb for gaging the potential for fouling by iron and manganese.

14. The Preliminary Design Report will briefly describe the procedures and results from previous slug tests.

15. The procedures to be used for borehole permeability tests are still under discussion with NJDEP.

16. Table B-1 in Appendix B - Quality Control Procedures tabulates the sample locations, depths, and analytes. This table will be revised in matrix format and provided to the field team. The revised table will be included in the Preliminary Design Report.

As we discussed with you on May 24, we plan one additional revision to the work plan. Rather than collect surficial soil samples from the new monitoring well locations for VOC analysis, we will collect the samples from the soil interval directly above the meadow mat layer. This change is based on observations made during the seep/sewer investigation program.

If you have any questions regarding these responses or would like to discuss them further, please do not hesitate to call. The DIP field program is scheduled to begin June 10. Therefore, it is critical that we receive any Department comments that could affect this program as soon as possible.

Sincerely yours,

Kathleen Sellers

Kathleen Sellers, P.E.
Environmental Engineer

Michael C. Worthy

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Project Manager

cc: Mark Kamilow, Allied-Signal
Rich Puvogel, USEPA